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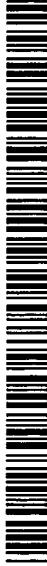
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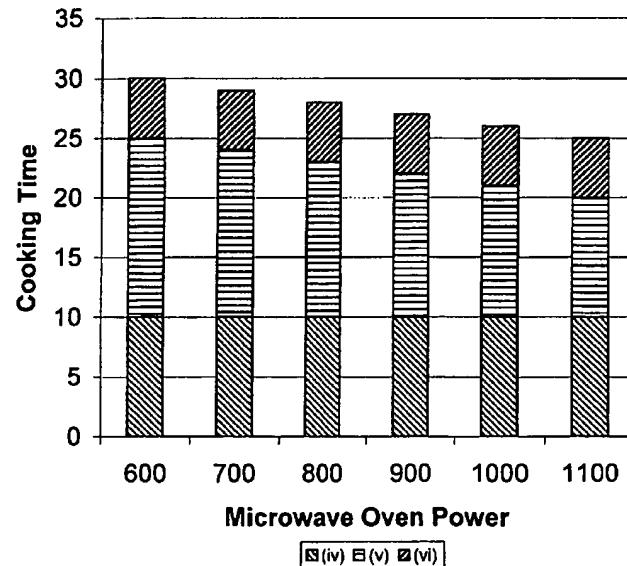
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(54) Title: METHOD FOR COOKING RICE



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(57) Abstract: A method for cooking rice in a microwave oven including the steps of placing water and rice in a container in a predetermined ratio; substantially sealing the water and the rice in the container; placing the container, containing the water and the rice, into the microwave oven; setting the microwave oven to a low power level and operating the microwave oven at that level for a first period; setting the microwave oven to a high power level and operating the microwave oven at that level for a second period; and either setting the microwave oven to a low power level and operating the microwave oven at that level for a third period or letting the unopened container stand for said third period.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

METHOD FOR COOKING RICE

5 Field of the Invention

This present invention relates to a method and apparatus for cooking rice in a microwave oven.

10 Background of the Invention

A traditional Japanese method for cooking short grain rice is described in "What's Cooking in Japan", Kikkoman Corp., Tokyo, 1993. This traditional rice cooking method includes the following steps:

15

(i) Washing the rice and then allowing it to drain for approximately 30 minutes;

(ii) Soaking the rice in water for 30 minutes, where ratio of water/rice is in the range of 1.1 to 1.2, by volume;

20 (iii) Heating the rice over a medium heat until the water boils. Typically, this step takes around 10 minutes;

(iv) Reducing the heat and simmering the rice for around 10 minutes, ensuring that the water doesn't boil over;

(v) Cooking the rice over a low heat for a further period of 10 to 12 minutes;

25 (vi) Removing the rice from the heat and letting it sit covered for around 10 to 15 minutes;

(vii) Fluffing the rice with a damp wooden paddle; and

(viii) Draping a kitchen cloth over the rice and placing a lid on top of the cloth until serving.

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The pre-cooking steps (i) and (ii) generally take around 60 minutes to complete and, although the rice will absorb some water during the washing and draining step (i), the rice will absorb most of its water during the soaking step (ii). The total cooking time involved in performing steps (iii) to (viii) is typically around 40 minutes. The total time required to 5 perform steps (i) to (viii) is therefore around 1 hour and 40 minutes.

Microwave ovens provide a fast and efficient means for cooking many different food items, including rice. It is generally recommended to cook rice in a container with water on full power for a period which is proportional to the quantity of rice being cooked and 10 the type and power level of the microwave oven being used.

A typical microwave oven cookbook such as "Microwave Cookbook, Janelle Bloom, Viking, Ringwood, Australia, 1996", for example, recommends the use of a 2L casserole dish for 1 cup (250 mL) of rice and to cook the rice for 10 to 12 minutes without a cover at 15 the maximum or high setting for an 850 Watt microwave oven. Rice cooked using this method typically does not absorb a sufficient amount of water to prevent the cooked rice from drying quickly. Rice cooked using this method typically dries up faster than rice cooked using the above-mentioned traditional Japanese cooking methods.

20 Although microwave ovens provide an efficient cooking means for most food types, microwave ovens have not been able to replace the need for the traditional pre-cooking steps required when cooking rice, particularly for short grain rice. As such, the traditional method must still be followed in order to produce good quality cooked rice, for the preparation of sushi rice, for example. If the pre-cooking steps are not followed, the 25 quality of final product is compromised.

Summary of the Invention

In accordance with the present invention there is provided, a method for cooking rice in a 30 microwave oven including the steps of:

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- (a) placing water and rice in a container in a predetermined ratio;
- (b) substantially sealing the water and the rice in the container;
- (c) placing the container, containing the water and the rice, into the microwave oven;
- 5 (d) setting the microwave oven to a low power level and operating the microwave oven at that level for a first period;
- (e) setting the microwave oven to a high power level and operating the microwave oven at that level for a second period; and
- (f) either setting the microwave oven to a low power level and operating the
- 10 microwave oven at that level for a third period or letting the unopened container stand for said third period.

Preferably, the step of washing the rice is included before placing the water and the rice in the container.

15 Preferably, the rice is short grain and the predetermined ratio is substantially 1.3 to 1.4 parts water, by volume, to 1 part rice, by volume.

20 Preferably, the rice is long grain and the predetermined ratio is substantially 1.2 parts water, by volume, to 1 part rice, by volume.

25 Preferably, the microwave oven is a 1,100 Watt phase controlled type microwave oven and, for 2 cups (the cup measuring 180 mL by volume) of rice, the first period is substantially 10 minutes, the second period is substantially 10 minutes and the third period is substantially 5 minutes.

30 Preferably, the microwave oven is a 600 Watt duty cycle type microwave oven and, for 2 cups (the cup measuring 180 mL by volume) of rice, the first period is substantially 10 minutes, the second period is substantially 15 minutes and the third period is substantially 5 minutes.

Preferably, egress of water vapour from the container is substantially precluded during cooking.

5 In another aspect there is provided, a container for cooking water and short grain rice in a predetermined ratio, including a plurality of water level markings on an inner surface of the container, where each marking of said markings indicates the level to which the container should be filled with water for cooking a corresponding number of cups of short grain rice, the cup for measuring short grain rice being of a predetermined volume so that the
10 water/rice ratio, by volume, is substantially in the range of 1.3 to 1.4.

Preferably, each marking of said markings indicates the level to which the container should be filled with water for cooking a corresponding number of cups of long grain rice, the cup for measuring long grain rice being of a predetermined volume so that the water/rice ratio,
15 by volume, is substantially 1.2.

In another aspect there is provided, a container for cooking water and long grain rice in a predetermined ratio, including a plurality of water level markings on an inner surface of the container, where each marking of said markings indicates the level to which the container
20 should be filled with water for cooking a corresponding number of cups of long grain rice, the cup for measuring long grain rice being of a predetermined volume so that the water/rice ratio, by volume, is substantially 1.2.

In another aspect, there is provided, a container for cooking rice and water, including a first
25 set of water level markings on an inner surface of the container and a second set of water level markings on another inner surface of the container, where the first set of markings correspond to the number of cups of short grain rice to be cooked and indicate the level to which the container should be filled with water so that the water/rice ratio, by volume, is substantially in the range of 1.3 to 1.4 and where the second set of markings correspond to
30 the number of cups of long grain rice to be cooked and indicate the level to which the

container should be filled with water to ensure that the water/rice ratio, by volume, is substantially 1.2, wherein the cup for measuring both the short grain rice and the long grain rice is of a predetermined volume.

5 Preferably, egress of water vapour from the container is substantially precluded when water is heated in the container.

Preferably, the marking indicate the correct amount of water to be added to the container once the rice has been added to the container.

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In another aspect there is provided, a microwave oven being programmable to operate at a low power level for a first predetermined period; operate at a high power level for a second predetermined period; and operate at a low power level for a third predetermined period.

15 Preferably, the microwave oven is a 1,100 Watt phase control type microwave oven; the first predetermined period is substantially 10 minutes; the second predetermined period is substantially 10 minutes and the third period is substantially 5 minutes.

20 Preferably, the microwave oven is a 600 Watt duty cycle type microwave oven; the first predetermined period is substantially 10 minutes; the second predetermined period is substantially 15 minutes and the third predetermined period is substantially 5 minutes.

In yet another aspect there is provided, a method for cooking rice using the above-mentioned microwave oven including the steps of:

25 (a) placing water and rice in a container in a predetermined ratio;
(b) substantially sealing the water and the rice in the container;
(c) placing the container, containing the water and the rice, into the microwave oven;
(d) setting the microwave oven to a low power level and operating the microwave
30 oven at that level for the first predetermined period;

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(e) setting the microwave oven to a high power level and operating the microwave oven at that level for the second predetermined period; and

(f) either setting the microwave oven to a low power level and operating the microwave oven at that level for the third predetermined period or letting the unopened container stand for said third period.

5 Preferably, said microwave oven has a control means for executing the steps in sequence.

Brief Description of the Drawings

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Preferred embodiments of the invention will now be described, by way of non-limiting example only, with reference to the accompanying drawings in which:

Figure 1 illustrates a front portion of a microwave oven in accordance with the invention;

15 Figure 2 is a schematic diagram of the microwave oven of Figure 1; and

Figure 3 is graph representing cooking times for various types of microwave ovens in accordance with the invention.

20

Detailed Description of Preferred Embodiments of the Invention

25 A microwave oven 10 shown in Figure 1 includes a control panel 12, a display 14, a rotatable plate 16, a door 18 and a door opener 20. The microwave oven 10 is controlled by a microprocessing unit 22, shown in Figure 2, which uses memory 22 to store data. The microprocessing unit 22 interfaces with the display 14, the control panel 12 and a magnetron 24 via the interface port 26.

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A user of the microwave oven 10 interacts with the microwave oven 10 by pressing the

keypad buttons (not shown) on the control panel 12. The microprocessing unit 22 receives the instructions entered by the user and displays the instructions on the display 14. The microprocessing unit 22 also stores these instructions in the memory 24. When the user has finished entering their instructions, the user presses a "START" button (not shown) on 5 the keypad and the microprocessing unit 22 begins executing the user's instructions as stored in the memory 24.

The microprocessing unit 22 operates by switching the magnetron 14 on and off in accordance with the user's instructions. The magnetron 14 is the component used in 10 microwave ovens to generate the microwaves.

The microprocessing unit 22 may use a phase control method of controlling the magnetron. In this method the nominal full power of the microwave oven 10 is reduced and the reduced power is delivered continuously over the cooking time nominated by the user. 15 Accordingly, a low power level may be an average of substantially one tenth of the full power of the magnetron, substantially sustained over the entire nominated cooking period.

Alternatively, the microprocessing unit 22 may use a duty cycle technique to control the magnetron 14. In this technique, the cooking time is divided into a number of duty cycles 20 and microprocessing unit 22 switches the microwave oven's magnetron on and off in accordance with a predetermined portion of the duty cycle. In a microwave oven 10 of this kind, the power generated during the "on" parts of the duty cycle is essentially the full power of the microwave oven. The predetermined portion of the duty cycle corresponds to the power level selected by the user. For example, a 600 Watt microwave oven 10 may 25 have a 32 sec duty cycle. If a user selects a low power level, the magnetron 14 delivers power at full strength (600 Watt) for a period of 3 sec every 32 seconds. Conversely, for the same 600 Watt microwave oven 10, if a user selects a high power level, the magnetron delivers power at full strength (600 Watt) for a period of full 32 seconds.

30 The invention is more fully explained by way of non-limiting examples only.

Example 1

Where the microwave oven 10 is a 600 Watt duty cycle type the following steps are performed in order to cook short grain rice:

5

- (i) Measure 2 cups (the cup measuring 180 mL by volume) of the rice and wash and drain the rice;
- (ii) Pour the rice into a microwave proof container and add 468 mL of water.
- (iii) Seal the container so that steam will generally be prevented from escaping the container during the cooking processes
- (iv) Cook the rice on a low power level for 15 minutes;
- (v) Cook the rice on a high power level 10 minutes; and
- (vi) Cook the rice on a low power level for 5 minutes.

15 Example 2

Where the microwave oven 10 is a 1,100 Watt phase control type the following steps are performed in order to cook short grain rice:

20

- (i) Measure 2 cups (the cup measuring 180 mL by volume) of the rice and wash and drain the rice;
- (ii) Pour the rice into a microwave proof container and add 468 mL of water.
- (iii) Seal the container so that steam will generally be prevented from escaping the container during the cooking processes
- (iv) Cook the rice on a low power level for 10 minutes;
- (v) Cook the rice on a high power level 10 minutes; and
- (vi) Cook the rice on a low power level for 5 minutes.

Example 3

Where the microwave oven 10 is a 1,100 Watt phase control type the following steps are performed in order to cook long grain rice:

- (i) Measure 2 cups (the cup measuring 180 mL by volume) of the rice and wash and drain the rice;
- (ii) Pour the rice into a microwave proof container and add 432 mL of water.
- 5 (iii) Seal the container so that steam will generally be prevented from escaping the container during the cooking processes
- (iv) Cook the rice on a low power level for 10 minutes;
- (v) Cook the rice on a high power level 10 minutes; and
- (vi) Cook the rice on a low power level for 5 minutes.

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The initial cooking step (iv) in each one of Examples 1 to 3 simulates the above-mentioned traditional Japanese precooking step (ii) of soaking the rice in water for a period of 30 minutes. This initial cooking step (iv) gently warms the water in the container and thereby promotes the absorption of water by the rice grains inside the container.

15

Preventing water vapour escaping from the container maintains a constant amount of water in the container. By maintaining a constant amount of water in the container, water to rice ratios can be accurately predicted and thereby consistently produce quality rice for sushi making, for example. In the event that water was lost during the cooking process, the 20 cooking times may be unpredictable and as a result the quality of the sushi rice produced would be compromised.

Generally, for a domestic phase control type microwave oven of 1,100 Watts the above-mentioned cooking step (v) involves 10 minutes of heating for 2 cups of rice; 13 minutes for heating 3 cups of rice and 15 minutes for heating 4 cups of rice.

25

Examples of cooking times for 2 cups of rice for different microwave oven 10 operating powers are shown in Figure 3. The time required for the initial cooking step (iv) is ten minutes and this time does not tend to be proportional to the power of the microwave oven 10 being used. The time required to complete the second cooking step (v) decreases as the 30 microwave oven's 10 operating power increases. The time required for the final cooking

- 10 -

step (vi) is 5 minutes and is independent to the power of the microwave oven 10.

In one embodiment of the invention, the final cooking step (vi) may be replaced by the step of letting the rice stand without additional heating for a period of 5 minutes.

5

As shown in Figure 3, the heating times for the second cooking step (v) vary. The variance is due to different nominal power levels of the microwave ovens 10 and different microwave oven 10 designs. As a general guide to determining the required time for the second cooking step (v), a reduction of 1 minute is required for each 100 Watts increase of 10 microwave oven power above 600 Watts. Heating efficiency in microwave ovens 10 is dependant on, for example, the number of wave guides, the microwave emission method, the rotation of rotatable plate 16, the container's position on the rotatable plate 16 and so forth. Preferably, the container is positioned on the rotatable plate 16 so that it goes through the most effective microwave field.

15

In one embodiment of the invention, the container is a known device marketed under the trade mark "Rice Cooker", manufactured by Star Industrial Co. Ltd. This device is essentially a container designed to be useful in cooking rice in a microwave oven 10 and is adapted to substantially prevent steam escaping from the container. The water to rice ratio 20 can therefore be more accurately predicted and maintained and higher quality rice is produced when used in conjunction with the above-mentioned rice cooking methods.

In a preferred embodiment of the invention a container is adapted to substantially prevent steam escaping and has two sets of internal markings. The first set of markings correspond to the number of cups (the cup measuring 180 mL by volume) of short grain rice being 25 cooked and indicate the level to which the container should be filled with water, after the rice has been added to the container, to ensure that the water/rice ratio, by volume, is substantially in the range of 1.3 to 1.4. The second set of markings correspond to the number of cups (the cup measuring 180 mL by volume) of long grain rice being cooked and indicate the level to which the container should be filled with water, after the rice has 30 been added, to ensure that the water/rice ratio, by volume, is substantially 1.2. Both sets of

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markings are based on the use of a common cup size of 180 mL.

In this embodiment of the invention the following steps are executed for cooking 2 cups (the cup measuring 180 mL by volume) of short grain rice in a 1,100 Watt continuous 5 power microwave oven:

- (i) Measure two cups of short grain rice;
- (ii) Wash and drain the short grain rice;
- (iii) Pour the rice into the above-mentioned container and then add water until the water is level with the mark on the inside of the container that corresponds to 2 10 cups short grain rice and seal the container so that steam will generally be prevented from escaping the container during the cooking processes;
- (iv) Heat the rice on a low power setting for 10 minutes;
- (v) Heat the rice on a high power setting for 10 minutes; and
- (vi) Either heat the rice on a lower power setting for 5 minutes or let the rice 15 stand without additional heating for 5 minutes.

In this embodiment of the invention the following steps are executed for cooking 2 cups, (the cup measuring 180 mL by volume) of long grain rice in a 1,100 Watt continuous power microwave oven:

- (i) Measure two cups of long grain rice;
- (ii) Wash and drain the long grain rice;
- (iii) Pour the rice into the above-mentioned container and then fill the container with water until the water is level with the mark on the inside of the container that corresponds to 2 cups long grain rice and seal the container so that steam will generally be prevented from escaping the container during the cooking processes;
- (iv) Heat the rice on a low power setting for 10 minutes;
- (v) Heat the rice on a high power setting for 10 minutes; and
- (vi) Either heat the rice on a lower power setting for 5 minutes or let the rice 25 stand without additional heating for 5 minutes.

The amount of time required for cooking both the short and the long grain rice in step (vii) is dependent on the power output and type of microwave oven used. Cooking times for steps (iv), (v) and (vi) for both long and short grain rice, for various microwave oven power ratings, are provided in Figure 3.

5

In a preferred embodiment of the invention, the microwave oven 10 has a control means for executing the above-mentioned cooking steps (iv) to (vi) in sequence as a single heating program.

- 10 In a further embodiment of the invention a container, adapted to substantially prevent steam escaping, has one set of internal markings corresponding to the number of cups of rice being cooked that indicate the level to which the container should be filled with water, after the rice has been added to the container, to ensure that the appropriate water/rice ratio, by volume, is substantially obtained. In this embodiment of the invention, precise
- 15 measuring cups are provided, one for each type of grain of rice to be cooked in the microwave. The cups maintain the above-mentioned water/rice ratios, by volume, of 1.3 for short grain rice and 1.2 for long grain rice.

In preferred embodiments of the invention the microwave oven 10 is a domestic
20 microwave oven.

The described arrangement has been an advanced merely by way of explanation and many modifications may be made thereto without departing from the spirit and scope of the invention which includes every novel feature and combination of novel features herein
25 disclosed.

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CLAIMS:-

1. A method for cooking rice in a microwave oven including the steps of:
 - (a) placing water and rice in a container in a predetermined ratio;
 - 5 (b) substantially sealing the water and the rice in the container;
 - (c) placing the container, containing the water and the rice, into the microwave oven;
 - (d) setting the microwave oven to a low power level and operating the microwave oven at that level for a first period;
 - 10 (e) setting the microwave oven to a high power level and operating the microwave oven at that level for a second period; and
 - (f) either setting the microwave oven to a low power level and operating the microwave oven at that level for a third period or letting the unopened container stand for said third period.
- 15 2. A method as claimed in claim 1, including the step of washing the rice before placing the water and the rice in the container.
3. A method claimed in claim 1 or claim 2, wherein the rice is short grain and the 20 predetermined ratio is substantially 1.3 to 1.4 parts water, by volume, to 1 part rice, by volume.
4. A method claimed in claim 1 or claim 2, wherein the rice is long grain and the predetermined ratio is substantially 1.2 parts water, by volume, to 1 part rice, by volume.
- 25 5. A method claimed in any one claim of the previous claims, wherein the microwave oven is a 1,100 Watt phase controlled type microwave oven and, for 2 cups (the cup measuring 180 mL by volume) of rice, the first period is substantially 10 minutes, the second period is substantially 10 minutes and the third period is substantially 5 minutes.

6. A method claimed in any one claim of claims 1 to 4, wherein the microwave oven is a 1,100 Watt phase controlled type microwave oven and, for 3 cups (the cup measuring 180 mL by volume) of rice, the first period is substantially 10 minutes, the second period is substantially 13 minutes and the third period is substantially 5 minutes.

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7. A method claimed in any one claim of claims 1 to 4, wherein the microwave oven is a 1,100 Watt phase controlled type microwave oven and, for 4 cups (the cup measuring 180 mL by volume) of rice, the first period is substantially 10 minutes, the second period is substantially 15 minutes and the third period is substantially 5 minutes.

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8. A method claimed in any one claim of claims 1 to 4, wherein the microwave oven is a 600 Watt duty cycle type microwave oven and, for 2 cups (the cup measuring 180 mL by volume) of rice, the first period is substantially 10 minutes, the second period is substantially 15 minutes and the third period is substantially 5 minutes.

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9. A method as claimed in any one of the preceding claims, wherein egress of water vapour from the container is substantially precluded during cooking.

10. A container for cooking water and short grain rice in a predetermined ratio, 20 including a plurality of water level markings on an inner surface of the container, where each marking of said markings indicates the level to which the container should be filled with water for cooking a corresponding number of cups of short grain rice, the cup for measuring short grain rice being of a predetermined volume so that the water/rice ratio, by volume, is substantially in the range of 1.3 to 1.4.

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11. A container as claimed in claim 10, where each marking of said markings indicates the level to which the container should be filled with water for cooking a corresponding number of cups of long grain rice, the cup for measuring long grain rice being of a predetermined volume so that the water/rice ratio, by volume, is substantially 1.2.

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12. The container claimed in claim 11, wherein the cup for measuring short grain rice is substantially 180 mL and the cup for measuring long grain rice is substantially 195 mL.

13. A container for cooking water and long grain rice in a predetermined ratio, 5 including a plurality of water level markings on an inner surface of the container, where each marking of said markings indicates the level to which the container should be filled with water for cooking a corresponding number of cups of long grain rice, the cup for measuring long grain rice being of a predetermined volume so that the water/rice ratio, by volume, is substantially 1.2.

10 14. A container for cooking rice and water, including a first set of water level markings on an inner surface of the container and a second set of water level markings on another inner surface of the container, where the first set of markings correspond to the number of cups of short grain rice to be cooked and indicate the level to which the container should be 15 filled with water so that the water/rice ratio, by volume, is substantially in the range of 1.3 to 1.4 and where the second set of markings correspond to the number of cups of long grain rice to be cooked and indicate the level to which the container should be filled with water to ensure that the water/rice ratio, by volume, is substantially 1.2, wherein the cup for measuring both the short grain rice and the long grain rice is of a predetermined volume.

20 15. A container as claimed in claim 14, wherein the predetermined volume of the cup is 180 mL.

16. A container claimed in any one of claims 10 to 15, where egress of water vapour 25 from the container is substantially precluded when water is heated in the container.

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17. A container claimed in any one of claims 10 to 16, wherein the marking indicate the correct amount of water to be added to the container once the rice has been added to the container.

18. A microwave oven being programmable to operate at a low power level for a first predetermined period; operate at a high power level for a second predetermined period; and operate at a low power level for a third predetermined period.

5 19. A microwave oven as claimed in claim 18, wherein the microwave oven is a 1,100 Watt phase control type microwave oven; the first predetermined period is substantially 10 minutes; the second predetermined period is substantially 10 minutes and the third period is substantially 5 minutes.

10 20. A microwave oven as claimed in claim 18, wherein the microwave oven is a 600 Watt duty cycle type microwave oven; the first predetermined period is substantially 10 minutes; the second predetermined period is substantially 15 minutes and the third predetermined period is substantially 5 minutes.

15 21. A method for cooking rice using the microwave oven claimed in any one of claims 18 to 20 including the steps of:

20 (a) placing water and rice in a container in a predetermined ratio;

(b) substantially sealing the water and the rice in the container;

(c) placing the container, containing the water and the rice, into the microwave oven;

(d) setting the microwave oven to a low power level and operating the microwave oven at that level for the first predetermined period;

(e) setting the microwave oven to a high power level and operating the microwave oven at that level for the second predetermined period; and

25 (f) either setting the microwave oven to a low power level and operating the microwave oven at that level for the third predetermined period or letting the unopened container stand for said third period.

30 22. A method as claimed in any one of claim 21, wherein said microwave oven has a control means for executing the steps in sequence.

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23. A method of cooking rice substantially as hereinbefore described with reference to the accompanying drawings.

5 24. A programmed microwave oven substantially as hereinbefore described with reference to the accompanying drawings.

AMENDED CLAIMS
[received by the International Bureau on 15 January 2002 (15.01.02)]

amended claim pages 13 to 17 and new
claim page 18. Claims 2 to 32 have been amended.

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CLAIMS:-

1. A method for cooking rice in a microwave oven including the steps of:
 - (a) placing water and rice in a container in a predetermined ratio;
 - 5 (b) substantially sealing the water and the rice in the container;
 - (c) placing the container, containing the water and the rice, into the microwave oven;
 - (d) setting the microwave oven to a low power level and operating the microwave oven at that level for a first period;
 - 10 (e) setting the microwave oven to a high power level and operating the microwave oven at that level for a second period; and
 - (f) either setting the microwave oven to a low power level and operating the microwave oven at that level for a third period or letting the unopened container stand for said third period.
- 15 2. (New) A method as claimed in claim 1, wherein step (f) is setting the microwave oven to the low power level and operating the microwave oven at that level for the third period.
- 20 3. (New) A method as claimed in claim 2, wherein the third period is less than or equal to 5 minutes.
4. (New) A method as claimed in claim 1, wherein step (f) is letting the unopened container stand for the third period.
- 25 5. (New) A method as claimed in claim 4, wherein the third period is substantially 5 minutes.
6. (Amended) A method as claimed in any one of claims 1 to 5, including the step of
30 washing the rice before placing the water and the rice in the container.

7. (Amended) A method claimed in any one of claims 1 to 6, wherein the rice is short grain and the predetermined ratio is substantially 1.3 to 1.4 parts water, by volume, to 1 part rice, by volume.

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8. (Amended) A method claimed in any one of claims 1 to 6, wherein the rice is long grain and the predetermined ratio is substantially 1.2 parts water, by volume, to 1 part rice, by volume.

10 9. (Amended) A method claimed in any one claim of the previous claims, wherein the microwave oven is a 1,100 Watt phase controlled type microwave oven and, for 2 cups (the cup measuring 180 mL by volume) of rice, the first period is substantially 10 minutes, the second period is substantially 10 minutes and the third period is substantially 5 minutes.

15 10. (Amended) A method claimed in any one claim of claims 1 to 8, wherein the microwave oven is a 1,100 Watt phase controlled type microwave oven and, for 3 cups (the cup measuring 180 mL by volume) of rice, the first period is substantially 10 minutes, the second period is substantially 13 minutes and the third period is substantially 5 minutes.

20 11. (Amended) A method claimed in any one claim of claims 1 to 8, wherein the microwave oven is a 1,100 Watt phase controlled type microwave oven and, for 4 cups (the cup measuring 180 mL by volume) of rice, the first period is substantially 10 minutes, the second period is substantially 15 minutes and the third period is substantially 5 minutes.

25 12. (Amended) A method claimed in any one claim of claims 1 to 8, wherein the microwave oven is a 600 Watt duty cycle type microwave oven and, for 2 cups (the cup measuring 180 mL by volume) of rice, the first period is substantially 15 minutes, the second period is substantially 10 minutes and the third period is substantially 5 minutes.

- 15 -

13. (Amended) A method as claimed in any one of the preceding claims, wherein egress of water vapour from the container is substantially precluded during cooking.

14. (Amended) A container for cooking water and short grain rice in a predetermined ratio, including a plurality of water level markings on an inner surface of the container, where each marking of said markings indicates the level to which the container should be filled with water for cooking a corresponding number of cups of short grain rice, the cup for measuring short grain rice being of a predetermined volume so that the water/rice ratio, by volume, is substantially in the range of 1.3 to 1.4.

10

15. (Amended) A container as claimed in claim 14, where each marking of said markings indicates the level to which the container should be filled with water for cooking a corresponding number of cups of long grain rice, the cup for measuring long grain rice being of a predetermined volume so that the water/rice ratio, by volume, is substantially 1.2.

16. (Amended) The container claimed in claim 15, wherein the cup for measuring short grain rice is substantially 180 mL and the cup for measuring long grain rice is substantially 195 mL.

20

17. (Amended) A container for cooking water and long grain rice in a predetermined ratio, including a plurality of water level markings on an inner surface of the container, where each marking of said markings indicates the level to which the container should be filled with water for cooking a corresponding number of cups of long grain rice, the cup for measuring long grain rice being of a predetermined volume so that the water/rice ratio, by volume, is substantially 1.2.

18. (Amended) A container for cooking rice and water, including a first set of water level markings on an inner surface of the container and a second set of water level markings on another inner surface of the container, where the first set of markings

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correspond to the number of cups of short grain rice to be cooked and indicate the level to which the container should be filled with water so that the water/rice ratio, by volume, is substantially in the range of 1.3 to 1.4 and where the second set of markings correspond to the number of cups of long grain rice to be cooked and indicate the level to which the 5 container should be filled with water to ensure that the water/rice ratio, by volume, is substantially 1.2, wherein the cup for measuring both the short grain rice and the long grain rice is of a predetermined volume.

19. (Amended) A container as claimed in claim 18, wherein the predetermined 10 volume of the cup is 180 mL.

20. (Amended) A container claimed in any one of claims 14 to 19, where egress of water vapour from the container is substantially precluded when water is heated in the container.

15
21. (Amended) A container claimed in any one of claims 14 to 20, wherein the markings indicate the correct amount of water to be added to the container once the rice has been added to the container.

20 22. (Amended) A microwave oven being programmable to operate at a low power level for a first predetermined period; operate at a high power level for a second predetermined period; and operate at a low power level for a third predetermined period.

23. (Amended) A microwave oven as claimed in claim 22, wherein the microwave 25 oven is a 1,100 Watt phase control type microwave oven and for 2 cups of either short grain or long grain rice, the first predetermined period is substantially 10 minutes; the second predetermined period is substantially 10 minutes and the third predetermined period is substantially 5 minutes.

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24. (Amended) A microwave oven as claimed in claim 22, wherein the microwave oven is a 600 Watt duty cycle type microwave oven and for 2 cups of either short grain or long grain rice, the first predetermined period is substantially 15 minutes; the second predetermined period is substantially 10 minutes and the third predetermined period is 5 substantially 5 minutes.

25. (Amended) A method for cooking rice using the microwave oven claimed in claim 22 including the steps of:

- (a) placing water and rice in a container in a predetermined ratio;
- 10 (b) substantially sealing the water and the rice in the container;
- (c) placing the container, containing the water and the rice, into the microwave oven;
- (d) setting the microwave oven to the low power level and operating the microwave oven at that level for the first predetermined period;
- 15 (e) setting the microwave oven to the high power level and operating the microwave oven at that level for the second predetermined period; and
- (f) either setting the microwave oven to the low power level and operating the microwave oven at that level for the third predetermined period or letting the unopened container stand for said third period.

20

26. (New) A method as claimed in claim 25, wherein step (f) is setting the microwave oven to the low power level and operating the microwave oven at that level for the third predetermined period.

25 27. (New) A method as claimed in claim 26, wherein the third predetermined period is less than or equal to 5 minutes.

28. (New) A method as claimed in claim 25, wherein step (f) is letting the unopened container stand for the third predetermined period.

30

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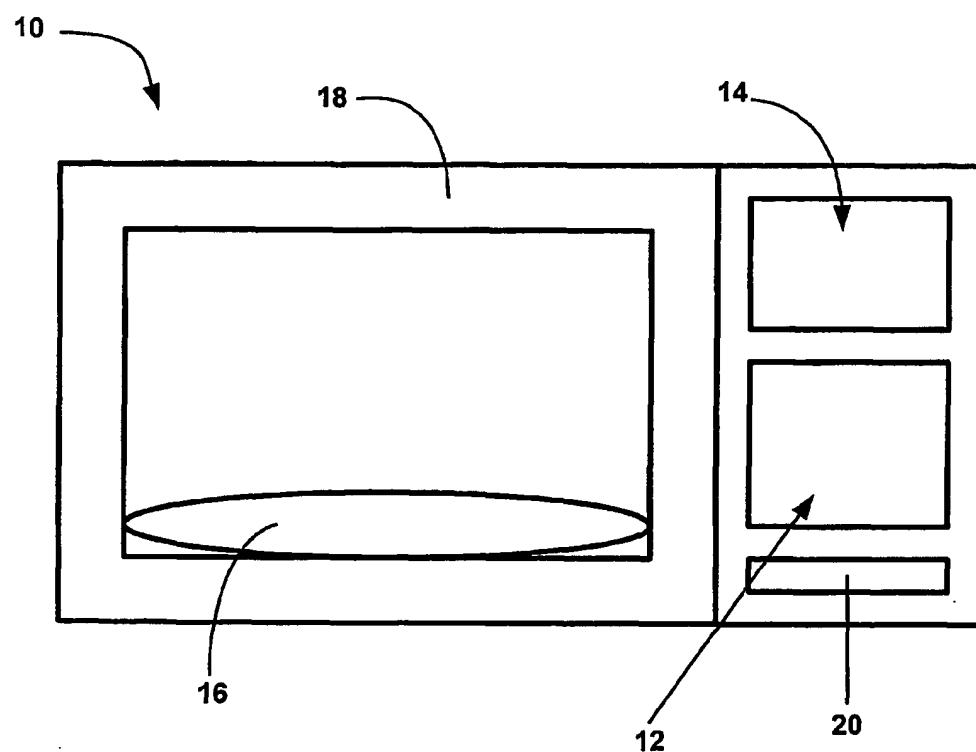
29. (New) A method as claimed in claim 28, whercin the third predetermined period is substantially 5 minutes.

30. (Amended) A method as claimed in any one of claims 25 to 29, wherein said microwave oven has a control means for executing the steps in sequence.

31. (Amended) A method of cooking rice substantially as hereinbefore described with reference to the accompanying drawings.

10 32. (Amended) A programmed microwave oven substantially as hereinbefore described with reference to the accompanying drawings.

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**Figure 1**

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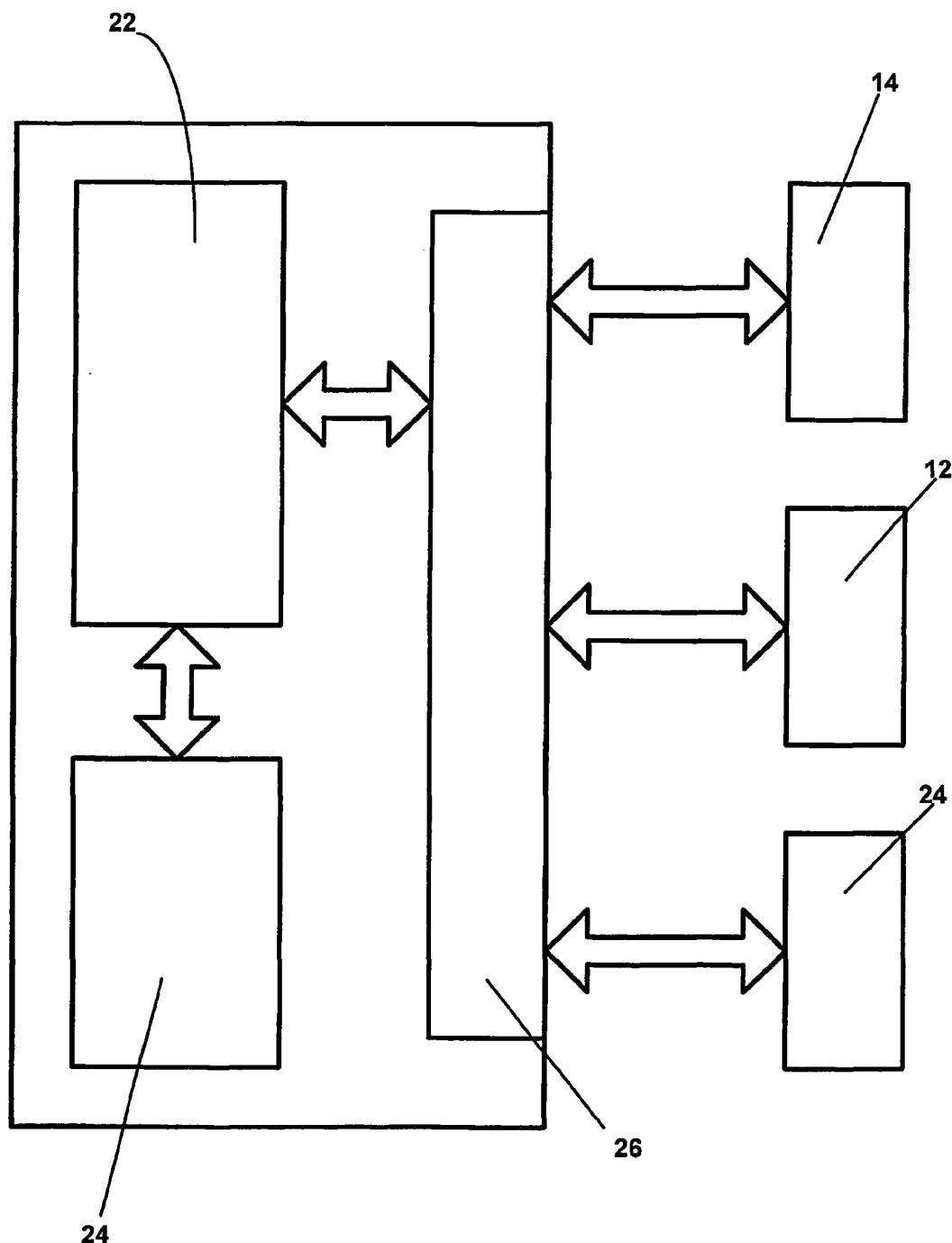


Figure 2

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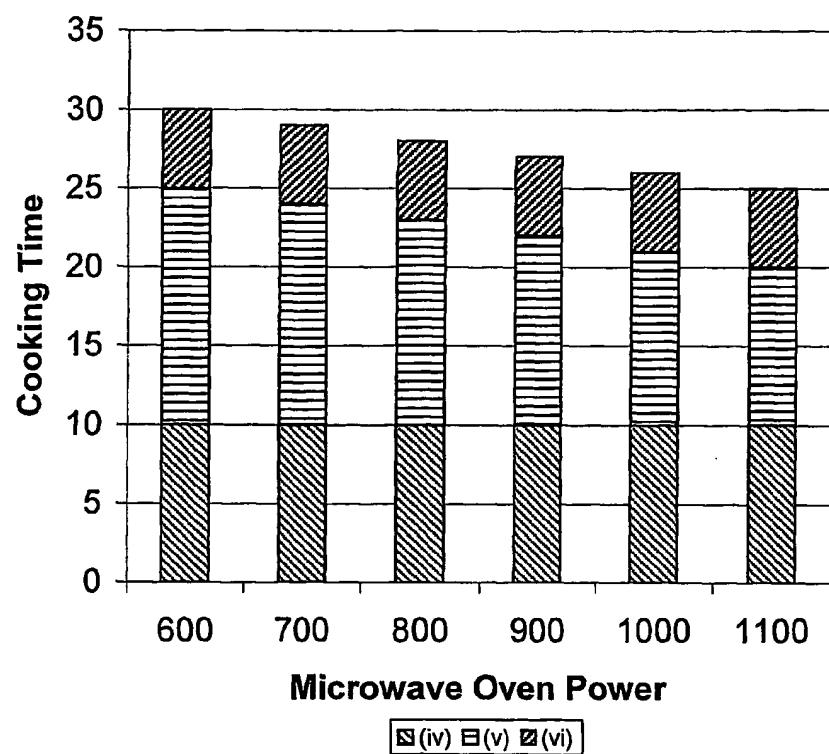


Figure 3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU01/01130

A. CLASSIFICATION OF SUBJECT MATTER		
Int. Cl. ⁷ : F24C 7/02		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched INTERNET with keywords		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) INTERNET: RICE AND MICROWAVE AND COOKER		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, O Y	DOROTHY MCNETT'S PLACE,[online].Recipes, "Fluffy Rice" 1 January 1995, [retrieved on 09-10-01]. Retrieved from the Internet: <URL: http://www.happycookers.com/wc.dll/recipes/divulge/B21360.html>	1-9,18-24
Y	THE CUSTOM BOOK COMPANY/RICEGROWERS COOPERATIVE LTD., "Healthy Lifestyle Cookbook", pg77-79, "simple cooking methods for ...", published by The Custom Book Company, Beecroft, NSW, 1992, ISBN 1 8751216 08 1	1-9,18-24
Y	GB 2255205 A (GOLD STAR CO LTD) 28 October 1992 See abstract	1-9,18-24
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "B" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed		
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 10 October 2001	Date of mailing of the international search report 15 NOV 2001	
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized officer SUSAN T. PRING Telephone No : (02) 6283 2210	

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU01/01130

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,O	SALLY'S KITCHEN,[online], Reviews, "Rice Cooker Reviews-Desirable Features", page 2, 2000, [retrieved on 7.11.01]. Retrieved from the Internet: < URL: http://www.sallyskitchen.com/html/reviews.html >	10-17
X,O	OSTER.COM, [ONLINE], Product Pantry, "Instruction Manual Rice Cooker/Food Steamer", page 5, 29 January 1999, [retrieved on 7.11.01]. Retrieved from the Internet: <URL: http://www.oster.com/productpantry/pdf/4704.pdf >.	10-17

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU01/01130

Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos :
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos :
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos :
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See additional sheet.

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

The additional search fees were accompanied by the applicant's protest.
 No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU01/01130

Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: II

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to from a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are two inventions:

Claims 1-9,18-22 appear to be directed to a method for cooking rice in a microwave oven using a number of power settings. It is considered that the cooking at a number of power settings comprises a first "special technical feature".

Claims 10-17 appear to be directed to a container with level markings. It is considered the level markings to comprise a second "special technical feature".

Since the above mentioned groups of claims do not share any of the technical features identified, a technical relationship between the inventions as defined in PCT rule 13.2 does not exist. Accordingly the international application does not relate to one invention or to a single inventive concept.

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/AU01/01130

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report	Patent Family Member
GB 2255205	JP 5-123251

END OF ANNEX